

SN 09/597,893  
Page 3 of 23

## IN THE CLAIMS

Please consider the claims as follows:

1. (currently amended) A method for targeting virtual advertisements to terminals, comprising:
  - assigning at least one virtual advertisement spot to a video program;
  - assigning one or more virtual objects to the at least one virtual advertisement spot; and
  - generating a retrieval plan, wherein the retrieval plan instructs one or more of the terminals to select one of the one or more virtual objects for placement at said at least one virtual advertisement spot in said video program.
2. (original) The method of claim 1, wherein generating the retrieval plan comprises:
  - assigning one or more of the terminals to one or more groups;
  - designating a unique group mask for one or more of the groups; and
  - assigning one or more of the groups to one of the virtual objects wherein the group mask indicates which terminals display a virtual object.
3. (original) The method of claim 2, wherein a group assignment and a corresponding group mask are stored in a memory of a terminal.
4. (original) The method of claim 2, wherein the group assignments are determined based on one or more of Area of Dominant Influence (ADI), zip code+4, demographic data and programs watched data, virtual objects viewed, on-screen questionnaires and characteristics imported from marketing databases, the group assignments being updated to reflect changes in the ADI, zip code+4, demographic data, programs watched data, virtual objects viewed, on-screen questionnaires, and characteristics imported from marketing databases.

SN 09/597,893

Page 4 of 23

5. (original) The method of claim 1, wherein the retrieval plan is sent periodically to the plurality of terminals, the retrieval plan being stored in a memory of one or more of the plurality of terminals.
6. (currently amended) A method of targeting virtual objects, comprising:  
providing a video program containing one or more virtual object locations;  
providing virtual objects for one or more of the virtual object locations;  
providing at least one alternate virtual object for at least one of the one or more virtual object locations; and  
providing a retrieval plan, wherein the retrieval plan at the terminal designates which of the one or more virtual object locations displays an alternate virtual object in said video program.
7. (currently amended) The method of claim 6, wherein the video program is a televised program.
8. Canceled.
9. (currently amended) The method of claim 6, wherein at least one of the virtual object locations is fixed in position across frames of the video program.
10. (currently amended) The method of claim 6, wherein at least one of the virtual object locations moves spatially in the video program with time.
11. (original) The method of claim 6, wherein at least one of the virtual objects is interactive.
12. (currently amended) The method of claim 6, wherein the video program is broadcast to television terminals in a television delivery system, further comprising:  
creating categories of virtual objects and content;

SN 09/597,893

Page 5 of 23

defining group categories;  
for one or more defined group categories, defining at least one group;  
assigning one or more television terminals, for the one or more group categories,  
to the at least one group;  
creating a group assignment matrix based on the categories of the virtual  
objects, the group categories and the group assignments;  
storing the group assignments matrix in the one or more television terminals;  
and  
comparing the retrieval plan to the group assignment matrix to determine virtual  
objects to display in the one or more virtual object locations.

13. (original) The method of claim 12, further comprising generating the retrieval  
plan, comprising:

assigning the virtual objects to the one or more virtual object locations;  
assigning the alternate virtual objects to at least one of the one or more virtual  
object locations;  
assigning a group to one or more of the virtual objects and the alternate virtual  
objects;  
and

creating a group mask assignment, wherein the group mask assignment is used  
by the television terminals to compare the retrieval plan to the group assignment matrix.

14. (currently amended) The method of claim 13, wherein assigning the group to  
each of the default virtual objects and the alternate virtual objects, comprises:

ranking one or more of video programs based on categories of targeted virtual  
objects and a first percentage of total viewers who view one or more of the video  
programs;

ranking of targeted virtual objects based on a second percentage of total  
viewers;

SN 09/597,893

Page 6 of 23

determining, for the one or more ranked video programs and the targeting categories, targeted virtual objects with overall highest rankings, based on the first and the second percentages;

assigning targeted virtual objects with the overall highest rankings to be displayed as the virtual objects; and

assigning targeted advertisements with lower overall rankings to be displayed as the alternate virtual objects.

15. (original) The method of claim 13, wherein groups are defined based on characteristics of viewers.

16. (original) The method of claim 15, wherein the characteristics include viewer demographic information.

17. (original) The method of claim 15, wherein the characteristics include viewer entered information.

18. (original) The method of claim 15, wherein the characteristics include programs watched data.

19. (original) The method of claim 15, wherein the characteristics include virtual objects watched data.

20. (original) The method of claim 15, wherein one or more of the virtual object locations contain an interactive virtual object, and wherein the characteristics include viewer activation of the interactive virtual object.

21. (original) The method of claim 12, wherein the television terminal is a set top terminal.

SN 09/597,893  
Page 7 of 23

22. (original) The method of claim 12, wherein the television terminal is incorporated into one of a television, a personal computer and a PDA with video viewing capabilities.

23. (original) The method of claim 12, wherein the television terminal is coupled to a television receiver.

24. (original) The method of claim 12, further comprising:  
at one or more of the one or more television terminals, recording in a memory an identification of a virtual object displayed in a virtual object location;  
providing the identification to a remote site; and  
deleting the identification from the memory.

25. (original) The method of claim 12, wherein the retrieval plan is provided with the transmission of the program and periodically to one or more of the one or more television terminals, the one or more television terminals storing the retrieval plan in a memory.

26. (currently amended) A method of targeting virtual objects to terminals, comprising:

- creating a package of targeted virtual objects;
- providing the package to one or more of the terminals;
- generating a group assignment matrix;
- providing the group assignment matrix to one or more of the terminals;
- generating a retrieval plan;
- providing the retrieval plan to one or more of the terminals; and
- providing a video program to one or more of the terminals, the video program including at least one virtual object location.

SN 09/597,893  
Page 8 of 23

27. (currently amended) The method of claim 26, further comprising at one or more of the terminals receiving the video program, retrieving one of the targeted virtual objects for display in the at least one virtual object location.
28. (original) The method of claim 27, wherein the retrieval step, comprises:  
comparing the group assignment matrix to the retrieval plan; and  
selecting a virtual object for display based on the comparison.
29. (original) The method of claim 26, further comprising:  
storing in a terminal memory an identification of the virtual object displayed in the at least one virtual object location;  
providing the identification to a remote site; and  
deleting the identification from the memory.
30. (original) The method of claim 26, wherein one or more of at least one virtual object locations contains an interactive virtual object, further comprising:  
receiving a selection of the interactive virtual object; and  
linking a terminal selecting the interactive virtual object to an alternate program.
31. (original) The method of claim 30, wherein the alternative program comprises an Internet web site.
32. (currently amended) A method for assigning targeted virtual objects to virtual object locations in one or more video programs, comprising:  
identifying the one or more video programs to carry the targeted virtual objects;  
assigning the targeted virtual objects to target categories;  
dividing one or more target categories into groups of viewers;  
ranking one or more of the video programs based on the target categories and a first percentage of total viewers in one or more groups of viewers;

SN 09/597,893  
Page 9 of 23

ranking the targeted virtual objects based on a second percentage of total viewers in one or more groups of viewers;

determining, for one or more of the video programs and one or more of the targeting categories, targeted virtual objects with overall highest rankings, based on the first and the second percentages;

assigning one or more targeted virtual objects as default virtual objects;

assigning one or more targeted virtual objects as alternate virtual objects; and  
assigning the default virtual objects and the alternate virtual objects to the virtual object locations.

33. (original) The method of claim 32, wherein the first percentage of total viewers is based on programs watched data collected from terminals capable of receiving the plurality of programs.

34. (original) The method of claim 32, wherein the first percentage of total viewers is based on viewer characteristics including viewer demographic information.

35. (currently amended) The method of claim 32, wherein assigning the default virtual objects and the alternate virtual objects, comprises:

generating a group assignment matrix;

providing the group assignment matrix to one or more of the terminals;

generating a retrieval plan; and

providing the retrieval plan to one or more of the terminals receiving the video programs.

36. (original) The method of claim 35, further comprising:

revising the retrieval plan and the group assignment matrix; and

providing the revised retrieval plan and group assignment matrix to the plurality of terminals.

SN 09/597,893  
Page 10 of 23

37. (original) The method of claim 35, wherein the retrieval plan and the group assignment matrix are provided over an Internet.
38. (original) The method of claim 32, wherein the package of targeted virtual objects is provided to a terminal over an Internet.
39. (original) The method of claim 32, wherein the package of targeted virtual objects is provided to a terminal using one of a public switched telephone network, a cable television network, a satellite television network, a local area network and a fiber optic network.
40. (original) The method of claim 32, wherein virtual objects are provided with program content.
41. (original) The method of claim 32, wherein virtual objects are provided independently of program content.
42. (currently amended) A method for targeting virtual objects to subscribers in a television program delivery system, comprising:
- gathering information related to the subscribers;
  - analyzing the gathered information to determine a subscriber profile for one or more of the subscribers;
  - correlating the subscriber profile with categories of virtual objects, wherein one or more virtual object categories includes at least one virtual object;
  - selecting a first virtual object and a second virtual object from the correlated virtual object categories; and
  - designating the first virtual object for display in a video program to a first subscriber and the second virtual object for display in a video program to a second subscriber.



SN 09/597,893  
Page 11 of 23

43. (original) The method of claim 42, further comprising gathering virtual objects watched data from the first and the second subscribers.

44. (original) The method of claim 42, further comprising defining virtual object locations, wherein the virtual objects are displayed in the virtual object locations.

45. (original) The method of claim 44, wherein the virtual object locations are defined in a television program.

Claims 46-50. Canceled.

51. (currently amended) A routine, executable on a general purpose computer, for targeting virtual objects to an individual viewer and to groups of viewers, the routine, comprising:

- a group definition routine that determines target categories of viewer characteristics;

- a group assignment routine that assigns individual viewer terminals a group number for each of the target categories;

- a virtual object location routine that determines available virtual object locations in a video program; and

- a retrieval plan generator that generates a plan for retrieving one or more virtual objects for display in one or more of the available virtual object locations, wherein the plan is generated based on the group number.

52. (currently amended) A method for targeting virtual objects to viewers; comprising:

- recognizing a virtual object location in a video program;

- receiving one or more virtual objects; and

- generating a retrieval plan that instructs viewers' terminals to insert one or more of the virtual objects into one or more of the virtual objects in the video program.

SN 09/597,893  
Page 12 of 23

53. (currently amended) A method for targeting virtual objects to locations in a video program, comprising:

identifying virtual objects for insertion into one or more of the locations in said video program; and

providing one or more of the identified virtual objects for insertion based on an identity of a terminal that displays the program.

54. (currently amended) A method for targeting virtual objects to terminals, comprising:

identifying the terminals based on characteristics of individual terminals and terminal groups;

identifying virtual object locations in video programs for display at the terminals;

and

targeting the virtual objects for insertion into the virtual object locations based on the identities of the terminals.

55. (original) The method of claim 54, further comprising displaying multiple virtual objects simultaneously.

56. (original) The method of claim 54, wherein one or more of the virtual objects are interactive virtual objects further comprising:

receiving a selection of one or more of the interactive virtual objects from one or more of the terminals;

linking the selecting terminal to a remote location; and

displaying content from the remote location at the selecting terminal.

57. (currently amended) The method of claim ~~[[46]]~~ 56, wherein the remote location is an operations center and the content is an additional program.

SN 09/597,893  
Page 13 of 23

58. (currently amended) The method of claim [[46]] 56, wherein the remote location is an Internet web site and the content is one or more web pages.

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☒ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**